

What is claimed is:

1. A maximum power point tracking method that supplies power of a direct-current power source, having a bow-shaped current-voltage characteristic, to a load via a switching converter, wherein:

5 an output current value of said direct-current power source, which undergoes low-frequency, minute modulation of input voltage to the switching converter, is detected in a circuit with an amplification factor switching function that switches the amplification factor between definite magnitudes synchronizing with said modulation, and said switching converter is controlled using a signal obtained in a discriminator
10 circuit by demodulating output of this circuit synchronizing with said modulation.

2. The maximum power point tracking method of claim 1, that limits the input voltage of the switching converter to a predetermined range.

3. The maximum power point tracking method of claim 1, wherein said direct-current power source includes at least one of a solar cell, a direct-current power source
15 that generates power using wind power, and a direct-current power source that generates power using wave power.

4. The maximum power point tracking method of claim 2, wherein said direct-current power source includes at least one of a solar cell, a direct-current power source that generates power using wind power, and a direct-current power source that generates
20 power using wave power.

5. A maximum power point tracking device that supplies power of a direct-current power source, which has a bow-shaped current-voltage characteristic, to a load via a switching converter, said maximum power point tracking device comprising:

(1) a circuit for performing low-frequency, minute modulation that alternately switches
25 input voltage of the switching converter between two voltage values;

(2) a circuit that detects an output current value of said direct-current power source and has an amplification factor switching function that switches the amplification factor between definite magnitudes synchronizing with the modulation in (1) above;

(3) a discriminator circuit for obtaining a component synchronized with the modulation
30 in (1) of output of the circuit in (2); and

(4) a circuit that uses output of the circuit in (3) to generate a signal that is also input to a switching converter control circuit.

6. The maximum power point tracking device of claim 4, further comprising a circuit that limits the input voltage of the switching converter to a predetermined range.

7. The maximum power point tracking device of claim 5, wherein the direct-current power source is at least one of a solar cell, a direct-current power source that generates power using wind power, and a direct-current power source that generates power using wave power.

8. The maximum power point tracking device of claim 6, wherein the direct-current power source is at least one of a solar cell, a direct-current power source that generates power using wind power, and a direct-current power source that generates power using wave power.